



Tuesday, 26 May 2015

Ms Amanda Langstaff,
Natural Resources Wales,
Chester Road,
Buckley,
Flintshire.
CH7 3AJ

Dear Ms Langstaff,

Data Submission April 2015

Please find enclosed the monthly data submission for routine environmental monitoring undertaken at our Ruabon Landfill Site during April 2015.

We trust this is satisfactory, please do not hesitate to contact us should you require further clarification.

**Yours sincerely,
for FCC ENVIRONMENT**

Geoff Forrest

Compliance Advisor, North Wales



Ruabon Landfill Site

Routine Environmental Monitoring Data Submission

April 2015

Prepared by G.Forrest
28th May 2015

APPENDIX 1

Field Logs

Field log report

Ruabon

09-April-2015

Equipment 01 Calibration Due	26/08/2015
Equipment 01 Calibration Due	26/08/2015
Equipment 01 Last Calibration	26/02/2015
Equipment 01 Last Calibration	26/02/2015
Equipment 01 Serial No.	G500670
Equipment 01 Serial No.	G500670
Equipment 01 Type	GA5000
Equipment 01 Type	GA5000
Personnel 01	J.Crawford
Personnel 01	J.Crawford
Time OFF	14:00
Time OFF	14:00
Time ON	09:00
Time ON	09:00
Weather	Sunny intervals
Weather	Sunny intervals

Issued By:

Signed By :

Name :

Field log report

Ruabon

10-April-2015

Equipment 01 Last Calibration	23/02/2015
Equipment 01 Serial No.	GA5000 + G501011
Personnel 01	INF00925 Alan.Parry
Time OFF	13:38
Time ON	09:53
Weather	Clear

Issued By:

Signed By :

Name :

Field log report

Ruabon

15-April-2015

Equipment 01 Last Calibration	23/02/2015
Equipment 01 Serial No.	GA5000 + G501011
Personnel 01	INF00925 alan.parry
Time OFF	14:55
Time ON	09:15
Weather	Clear

Issued By:

Signed By :

Name :

Field log report

Ruabon

17-April-2015

Equipment 01 Calibration Due	13/09/2015
Equipment 01 Last Calibration	12/03/2015
Equipment 01 Serial No.	G501869
Equipment 01 Type	GA5000
Personnel 01	L Terrace
Time OFF	12:35
Time ON	09:05
Weather	Sunny

Issued By:

Signed By :

Name :

Field log report

Ruabon

23-April-2015

Equipment 01 Calibration Due	13/09/2015
Equipment 01 Last Calibration	12/03/2015
Equipment 01 Last Calibration	23/02/2015
Equipment 01 Serial No.	GA5000 + G501011
Equipment 01 Serial No.	G501869
Equipment 01 Type	GA5000
Personnel 01	L Terrace
Personnel 01	INF00925 Alan.Parry
Time OFF	15:00
Time OFF	15:00
Time ON	12:40
Time ON	09:47
Weather	Clear
Weather	Sunny

Issued By:

Signed By :

Name :

Field log report

Ruabon

27-April-2015

Equipment 01 Last Calibration	22/04/2015
Equipment 01 Serial No.	None used
Personnel 01	JSR
Time OFF	10:45
Time ON	09:00
Weather	Clear

Issued By:

Signed By :

Name :

Field log report

Ruabon

28-April-2015

Equipment 01 Serial No.	79281-10
Equipment 01 Type	Geotechnical Atex Dip Meter
Personnel 01	G Forrest
Time OFF	16:00
Time ON	14:30
Weather	sun, cool

Issued By:

Signed By :

Name :

Field log report

Ruabon

30-April-2015

Equipment 01 Last Calibration	08/04/2015
Equipment 01 Serial No.	GEM2000Plus + GM10338
Personnel 01	INF00925 alan.parry
Time OFF	15:52
Time ON	11:47
Weather	Wet

Issued By:

Signed By :

Name :

APPENDIX 2

Perimeter Borehole Gas Data

Ruabon Perimeter Borehole Gas Data - April 2015



From : 01/04/2015

To : 01/05/2015

01/04/2015

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	Dip to Water (m)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)	TD (m)
RUBH0006	1012	5	2.5	1.94	0	6.6	0.31	11.71
RUBH0007	1012	17.2	3.8	3.15	0	1.6	-0.05	38.67
RUBH0008	1011	0	0.2	1.8	0	20.5	0.05	42.38
RUBH0009	1011	0	0.2	2.67	0	20.6	0.02	7.5
RUBH0010	1011	0	0.3	3.43	0	20.4	0.03	36.14
RUBH0013	1008	0	0.1	0.9	0	20.7	0.02	34.63
RUBH0014	1008	0	0.7	2.14	0	20.2	10.17	10.72
RUBH0015	1010	0	0.1	5.92	0	18.9	0.09	41.59
RUBH0016	1010	0	0.2	10.18	0	20.5	0.1	47.14
RUBH001A	1010	0	0.4	4.79	0	19.5	-0.02	12.77
RUBH001B	1010	0	0.4	5.03	0	19.3	-0.05	6.38
RUBH002A	1011	0	0.1	5.09	0	19.9	-0.09	6.48
RUBH002B	1011	0	0.4	5.14	0	19.7	-3.58	11.71
RUBH003A	1011	0	0.5	5.5	0	19.6	-12.32	13.08
RUBH003B	1011	0	0.1	5.44	0	20.5	0	6.37
RUBH004A	1011	0	1.4	5.31	0	19	-8.31	9.58
RUBH004B	1011	0	1	5.36	0	19.9	0.14	6.33
RUBH011A	1009	0	1.1	1.65	0	20.2	-8.12	12.79
RUBH011P	1009	0	0.1	2.94	0	20.7	0.03	14.42
RUBH012A	1007	0	0.1	0.32	0	20.6	-0.12	5.37
RUGBH001	1011	0	4.6	6.05	0	16.3	-0.02	6.05
RUGBH002	1012	0	1	2.37	0	19.6	-0.07	7
RUGBH003	1011	0	1.7	2.61	0	13	-0.31	4.9
RUGBH004	1012	5	0.8	2.77	0	18.9	-0.07	21.89
RUGBH005	1012	0.3	0.3	2.88	0	20.1	0.09	6.31
RUGBH006	1011	0	1.5	1.15	0	19.9	0.38	6.88
RUGBH007	1008	0	0.2	0.71	0	20.4	0.02	2.94
RUGBH008	1007	0	0.2	0.98	0	20.3	-0.05	6.17
RUGBH009	1008	0	1	0.87	0	19.4	-2.01	8.23
RUGBH010	1008	0	0.8	0.55	0	20	0.31	3.95
RUGBH02A	1011	0	0.1	1.3	0	20.5	0.02	1.4
RUGP0001	1010	3.8	0.4		0	18.9	0	
RUGP0002	1010	0	0.3		0	19.9	0.24	
RUGP0003	1010	0	0.1		0	19.7	0.05	
RUGP0004	1011	0	3.3		0	15.7	0.07	
RUGP0008	1011	0	0.2		0	19.7	0.02	
RUGP0009	1011	5	10.8		0	3.3	-0.02	
RUGP0010	1010	0	1.9		0	19.1	-0.05	
RUGP0011	1011	0	1.8		0	18.8	0.03	
RUGP0012	1011	0	0.1		0	20.5	0.02	
RUGP0013	1011	0	0.5		0	20.3	0.07	
RUGP0014	1011	0	4		0	16.5	0.02	
RUGP0015	1009	0	0.2		0	20.2	-0.34	
RUGP0016	1008	0	1.1		0	19.7	0.05	
RUGP0018	1009	0	0.1		0	20.2	-0.03	
RUGP0019	1008	0	0.1		0	20.2	0.05	
RUGP0020	1008	0	0.1		0	20.3	0.03	
RUGP0021	1008	0	0.8		0	19.2	0.03	
RUGP00A1	1012	0	0.1		0	20.6	0.03	

Issued By:

Ruabon Perimeter Borehole Gas Data - April 2015



From : 01/04/2015

To : 01/05/2015

01/04/2015

	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	Dip to Water (m)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)	TD (m)
RUGP00A2	1011	0	0.1		0	20.6	0.15	
RUGP00A3	1011	0	0.1		0	20.6	-1.07	
RUGP00B1	1012	0	0.1		0	20.3	-0.02	
RUGP00B2	1011	0	0.2		0	19.4	0.02	
RUGP00B3	1012	0	0.1		0	20.6	0.02	
RUGP00C1	1011	0	0.1		0	20.3	0	
RUGP00C2	1011	0	0.1		0	19.6	0.09	
RUGP00C3	1012	0	0.1		0	20.4	-1.24	
RUGP00D1	1011	0	0.1		0	20.3	-0.03	
RUGP00D2	1011	0	0.1		0	20.3	-0.19	
RUGP00D3	1011	0	0.1		0	18.5	-0.53	
RUGP00E1	1012	0	0.1		0	20.5	0.05	
RUGP00E2	1011	0	0.1		0	20.4	0	
RUGP00E3	1011	0	0.1		0	20.4	0.03	
RUGP00F1	1012	0	0.1		0	20.2	0	
RUGP00F2	1011	0	0.1		0	19.9	0	
RUGP00F3	1011	0	0.1		0	20.3	-0.12	
RUWB001A	1011	0	0.3	2.78	0	16	-2.2	48.9
RUWB001B	1011	0	0.1	4.15	0	20	0	7.87
RUWB002A	1011	0	0.1	4.7	0	20.4	0	21.37
RUWB002B	1011	0	2.6	5.96	0	18	0	10.46
RUWB002C	1011	0	2.6	6.2	0	18.7	0.03	8.05
RUWB002D	1011	0	0.2	5.92	0	20.4	0.02	21.65
RUWB003A	1008	0	0.5	8.96	0	15.9	0.1	10.7
RUWB003B	1008	0	0.1	0.4	0	18.5	-0.02	7.56
RUWB004A	1008	0	0.1	2.99	0	17.8	0.02	48.83
RUWB004B	1008	0	0.4	0.81	0	18.7	0.02	8.54
RUWB005A	1009	0	0.1	2.81	0	20.4	0.03	25.31
RUWB005B	1010	0	0.6	3.99	0	19.9	0.03	8.4

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Ruabon Perimeter Borehole Gas Data - April 2015



From : 01/04/2015

To : 01/05/2015

09/04/2015

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)
RUBH0006	1015	0	0.1	0	19.6	0
RUBH0007	1014	7.3	1.7	0	3.8	0
RUBH0008	1015	0	0.1	0	19.5	0.05
RUBH0009	1015	0	0.1	0	19.3	0.03
RUBH0010	1014	0	0.1	0	18.5	0.03
RUBH0013	1015	0	0.1	0	13.8	-0.07
RUBH0014	1012	0	0.1	0	16	-0.15
RUBH0015	1014	0	4.9	0	11.2	-0.26
RUBH0016	1014	0	0.3	0	19.5	-0.39
RUBH001A	1013	0	0.5	1	19	-0.03
RUBH001B	1013	0	1.9	1	16.9	0.63
RUBH002A	1014	2.1	4.7	1	3	-0.05
RUBH002B	1014	0	0.4	1	18.9	0.03
RUBH003A	1015	0	0.5	0	18.9	-0.14
RUBH003B	1015	0	0.1	0	19.7	-0.14
RUBH004A	1015	0	2	0	18.5	-0.12
RUBH004B	1015	0	1.6	0	18.9	-0.27
RUBH011A	1013	0	0.4	0	19.3	-0.41
RUBH011P	1013	0	0.5	0	19.1	-0.36
RUBH012A	1013	0	0.1	0	19.5	-0.24
RUGBH001	1015	0	4	0	16.6	-0.21
RUGBH002	1012	0	0.5	0	19.4	0.36
RUGBH003	1012	0	0.1	0	19.7	0
RUGBH004	1012	0	0.8	0	18.6	0.15
RUGBH005	1015	11.9	3	0	17.9	0.1
RUGBH006	1015	1	2.2	0	10.1	0.15
RUGBH007	1015	0	0.1	0	3.2	0.15
RUGBH008	1015	0	0	0	18.8	0.21
RUGBH009	1015	0	2	0	10.9	0.27
RUGBH010	1015	0	0	0	19.6	-0.03
RUGBH02A	1013	0	0.2	0	19.5	0.29
RUGP0001	1013	0.3	0.1	1	19.6	0.39
RUGP0002	1013	0	0.4	1	19.5	0.53
RUGP0003	1013	0	0.1	1	19	0.77
RUGP0004	1014	0	3.5	0	14.4	0.29
RUGP0008	1015	0	0.2	1	19.1	-0.56
RUGP0009	1015	8.1	11.3	1	3.3	0.03
RUGP0010	1014	0	1.5	0	18	-0.1
RUGP0011	1015	0	1.9	0	18	-0.14
RUGP0012	1015	0	0.2	0	19.7	-0.09
RUGP0013	1015	0	0.7	0	19.5	-0.24
RUGP0014	1015	0	1.4	0	19.2	-0.1
RUGP0015	1015	0	0	0	15.6	0.19
RUGP0016	1015	0	1.8	0	18	0.14
RUGP0018	1015	0	0	0	19.6	0.41
RUGP0019	1016	0	0	0	19.7	-0.7
RUGP0020	1015	0	0.1	0	19.6	-0.05
RUGP0021	1015	0	0	0	19.7	-0.15
RUGP00A1	1015	0.3	0.2	0	19.4	-0.07

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Ruabon Perimeter Borehole Gas Data - April 2015



From : 01/04/2015

To : 01/05/2015

09/04/2015

	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)
RUGP00A2	1015	0	0	0	19.6	0.1
RUGP00A3	1015	0	0.2	0	18.4	0.31
RUGP00B1	1015	0	0	0	19.4	-0.07
RUGP00B2	1015	0	0.1	0	19.6	-0.02
RUGP00B3	1015	0	0	0	19.7	0.05
RUGP00C1	1012	0	0.5	0	14.2	0.17
RUGP00C2	1012	0	1.8	0	18.6	0.09
RUGP00C3	1012	0	0.1	0	19.8	-0.03
RUGP00D1	1012	0	0.4	0	19.6	-0.15
RUGP00D2	1012	0	0.1	0	19.8	0.03
RUGP00D3	1012	0	2.1	0	17.9	-0.1
RUGP00E1	1013	0	0.2	0	16.7	0.03
RUGP00E2	1012	0	0.4	0	18.4	-0.03
RUGP00E3	1013	0	0.7	0	19.2	0.03
RUGP00F1	1013	0	0.1	0	19.7	-0.1
RUGP00F2	1012	0	0.1	0	19.7	
RUGP00F3	1015	0	0.2	0	20.3	-0.03
RUWB001A	1014	0	0.3	1	16.3	0.1
RUWB001B	1014	0	1.4	0	17.7	-0.14
RUWB002A	1015	0	4.3	0	17.8	-0.22
RUWB002B	1015	0	0.2	0	19.1	-0.02
RUWB002C	1015	0	1.7	0	18.6	-0.1
RUWB002D	1015	0	0.2	0	19.6	-0.12
RUWB003A	1012	0	0.1	0	19.3	0.07
RUWB003B	1015	0	1.4	0	19	-0.19
RUWB004A	1015	0	0	0	19.6	-0.02
RUWB004B	1016	0	0	0	19.6	-0.1
RUWB005A	1012	0	0.1	0	20.3	0.12
RUWB005B	1012	0	0.7	0	19.6	0.12

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Ruabon Perimeter Borehole Gas Data - April 2015



From : 01/04/2015

To : 01/05/2015

17/04/2015

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)
RUBH0006	1012	5.8	2.4	0	11.6	0.09
RUBH0007	1011	21.5	3.9	0	0.8	-0.14
RUBH0008	1010	0	4.7	0	15	-0.07
RUBH0009	1010	0	0.1	0	19.9	-0.03
RUBH0010	1010	0	0.6	0	19.4	-0.05
RUBH0013	1009	0	0.1	0	20.3	-0.02
RUBH0014	1009	0	0.9	0	19.6	7.28
RUBH0015	1010	0	0	0	15.4	-0.05
RUBH0016	1010	0	0.1	0	20	0.02
RUBH001A	1010	0	0.5	0	19.3	-0.07
RUBH001B	1010	0	0.7	0	18.7	-0.03
RUBH002A	1010	0	0.1	0	20	0
RUBH002B	1010	0	0.3	0	19.9	0.07
RUBH003A	1010	0	0.4	0	19.6	-0.07
RUBH003B	1010	0	0.1	0	20.4	0.05
RUBH004A	1010	0	1.3	0	19.1	-3.6
RUBH004B	1010	0	0.1	0	20.6	-0.09
RUBH011A	1009	0	0.8	0	19.4	-6.26
RUBH011P	1009	0	0.1	0	20.1	-0.05
RUBH012A	1009	0	4.4	0	3.1	0
RUGBH001	1009	0	4.4	0	16.6	-0.19
RUGBH002	1010	0	2.6	0	17.5	0.05
RUGBH003	1011	0	2	0	14.3	-0.05
RUGBH004	1011	24.1	7.7	0	12.8	0
RUGBH005	1011	0	0.1	0	19.9	-0.02
RUGBH006	1011	0	0.8	0	19.5	0.15
RUGBH007	1008	0	0.1	0	20.3	0.52
RUGBH008	1009	0	0.3	0	20	-0.09
RUGBH009	1009	0	0.1	0	20.1	-0.02
RUGBH010	1010	0	0.4	0	19.9	0.02
RUGBH02A	1010	0	0.2	0	20.4	-0.03
RUGP0001	1011	21.3	1.7	0	13.1	4.2
RUGP0002	1010	0	0.2	0	19.4	0
RUGP0003	1010	0	0.1	0	19.4	0
RUGP0004	1010	0	3.3	0	16.3	0
RUGP0008	1010	0	0.2	0	20	0
RUGP0009	1010	8.9	11.7	0	3.6	-0.09
RUGP0010	1010	0	1.4	0	18.9	-0.07
RUGP0011	1010	0	1.8	0	18	-0.03
RUGP0012	1010	0	0.1	0	20.3	-0.21
RUGP0013	1010	0	0.6	0	20.1	-0.09
RUGP0014	1010	0	4.1	0	16.5	0.14
RUGP0015	1010	0	0.1	0	20.1	-0.07
RUGP0016	1009	0	1.6	0	18.7	0.12
RUGP0018	1009	0	0.1	0	20.1	0.09
RUGP0019	1009	0	0.1	0	20.1	0.09
RUGP0020	1009	0	0.1	0	20.3	-0.15
RUGP0021	1009	0	0.7	0	19.7	0.02
RUGP00A1	1011	0	0.1	0	19.9	-0.14

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Ruabon Perimeter Borehole Gas Data - April 2015



From : 01/04/2015

To : 01/05/2015

17/04/2015

	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)
RUGP00A2	1010	0	0.1	0	19.9	0.07
RUGP00A3	1011	0	0.1	0	19.9	-0.09
RUGP00B1	1011	0	0.1	0	19.9	-0.03
RUGP00B2	1010	0	0.2	0	18.8	0.03
RUGP00B3	1010	0	0.1	0	19.9	0.02
RUGP00C1	1011	0	0.1	0	20	0.31
RUGP00C2	1011	0	0.1	0	19.1	0.5
RUGP00C3	1011	0	0.1	0	20.1	-0.29
RUGP00D1	1010	0	0.1	0	20.1	0.07
RUGP00D2	1010	0	0.1	0	20	-0.05
RUGP00D3	1010	0	0.1	0	19.8	-0.12
RUGP00E1	1009	0	0.1	0	20.1	-0.03
RUGP00E2	1010	0	0.1	0	20.1	0.17
RUGP00E3	1010	0	0.1	0	20	0.62
RUGP00F1	1010	0	0.1	0	20.2	-0.05
RUGP00F2	1010	0	0.1	0	20.1	-0.15
RUGP00F3	1010	0	0.1	0	20.3	0.02
RUWB001A	1010	0	0.2	0	18.2	0.07
RUWB001B	1010	0	1.3	0	17.9	0.02
RUWB002A	1010	0	0.1	0	20.2	0.03
RUWB002B	1004	0	0.9	0	20.2	-0.05
RUWB002C	1008	0	0.2	0	20.6	-0.03
RUWB002D	1010	0	0.2	0	20.3	0
RUWB003A	1009	0	0.4	0	15.5	0
RUWB003B	1009	0	0.1	0	18.7	-0.12
RUWB004A	1009	0	0.1	0	17.7	0.1
RUWB004B	1009	0	0.3	0	19.2	0.02
RUWB005A	1011	0	0.1	0	20.2	-0.05
RUWB005B	1011	0	0.8	0	19.6	0

Issued By:

Ruabon Perimeter Borehole Gas Data - April 2015



From : 01/04/2015

To : 01/05/2015

23/04/2015

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)
RUBH0006	1009	1.4	1.3	0	17.1	-0.17
RUBH0007	1008	24.3	3.7	0	0.5	-0.02
RUBH0008	1008	0	5.1	0	15.1	0.31
RUBH0009	1009	0	1.7	0	16.5	0.02
RUBH0010	1008	0	0.5	0	20.1	0
RUBH0013	1006	0	0.1	0	20.7	-0.03
RUBH0014	1006	0	1	0	19.9	0.1
RUBH0015	1008	0	0	0	16.8	0
RUBH0016	1007	0	0.1	0	20.5	0
RUBH001A	1009	0	0.5	0	20.4	0.07
RUBH001B	1010	0	1.3	0	18.6	-0.14
RUBH002A	1010	2.9	4.9	0	0.5	-0.02
RUBH002B	1010	0	0.3	0	20.5	1.67
RUBH003A	1010	0	0.3	0	20.3	-0.02
RUBH003B	1010	0	0.2	0	20.5	0.05
RUBH004A	1010	0	1.2	0	19.3	0.09
RUBH004B	1010	0	1.3	0	18.9	-0.07
RUBH011A	1007	0	0.7	0	19.7	0.22
RUBH011P	1007	0	0	0	20.7	-0.02
RUBH012A	1007	0	4.1	0	3	0
RUGBH001	1010	0	4	0	16.9	-0.03
RUGBH002	1010	0	2.2	0	18.3	0.02
RUGBH003	1009	0	1.8	0	15.3	0.22
RUGBH004	1009	27.5	8.7	0	11.5	0.03
RUGBH005	1009	0.2	0.1	0	20.5	0.07
RUGBH006	1009	0	0.7	0	20.2	0.45
RUGBH007	1006	0	0	0	20.9	-0.03
RUGBH008	1006	0	0.3	0	20.8	-0.07
RUGBH009	1006	0	0	0	20.9	0.09
RUGBH010	1005	0	0.1	0	20.9	-0.02
RUGBH02A	1010	0	0.1	0	20.8	0
RUGP0001	1010	28	2.3	0	11	0.48
RUGP0002	1010	0	0.2	0	19.1	-0.02
RUGP0003	1010	0	0	0	19.2	-0.05
RUGP0004	1010	0	3.2	0	16.7	0.12
RUGP0008	1010	0	0.2	0	20.5	0
RUGP0009	1010	9.2	11.4	0	3.7	0.02
RUGP0010	1010	0	1.7	0	18.9	0.03
RUGP0011	1010	0	1.8	0	19.2	0.07
RUGP0012	1010	0	0.1	0	20.8	-0.1
RUGP0013	1010	0	0.5	0	20.8	0
RUGP0014	1010	0	3.6	0	17.3	-0.12
RUGP0015	1007	0	0.1	0	20.8	-0.19
RUGP0016	1006	0	1.4	0	19.5	0
RUGP0018	1006	0	0.1	0	20.8	-0.1
RUGP0019	1006	0	0.1	0	20.8	-0.02
RUGP0020	1006	0	0	0	20.8	0
RUGP0021	1006	0	0.8	0	20.5	1.24
RUGP00A1	1010	0	0	0	20.6	0.5

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Ruabon Perimeter Borehole Gas Data - April 2015



From : 01/04/2015

To : 01/05/2015

23/04/2015

	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)
RUGP00A2	1009	0	0	0	20.5	0.28
RUGP00A3	1009	0	0	0	20.6	-0.02
RUGP00B1	1009	0	0	0	20.6	0
RUGP00B2	1009	0.6	0.2	0	18.4	0.05
RUGP00B3	1009	0	0	0	20.6	0.07
RUGP00C1	1009	0	0.1	0	20.6	-0.52
RUGP00C2	1009	0	0	0	18.9	0.52
RUGP00C3	1009	0	0	0	20.7	0.24
RUGP00D1	1010	0	0	0	20.6	-0.05
RUGP00D2	1009	0	0	0	20.7	-0.1
RUGP00D3	1009	0	0	0	20.6	0.12
RUGP00E1	1009	0	0	0	20.7	0.05
RUGP00E2	1009	0	0	0	20.7	0.6
RUGP00E3	1009	0	0	0	20.7	0.48
RUGP00F1	1010	0	0	0	20.8	-0.02
RUGP00F2	1009	0	0	0	20.4	0.43
RUGP00F3	1009	0	0	0	20.8	-0.02
RUWB001A	1010	0	0.2	0	19.6	0
RUWB001B	1010	0	1.7	0	17.9	0.05
RUWB002A	1010	0	0.1	0	20.6	0.03
RUWB002B	1009	0	1.3	0	19.5	-0.12
RUWB002C	1009	0	0.3	0	20.6	0.05
RUWB002D	1010	0	0.1	0	20.9	0.09
RUWB003A	1006	0	0.3	0	16.1	0.14
RUWB003B	1006	0	0.1	0	18.9	-0.09
RUWB004A	1006	0	0.1	0	19.3	0.02
RUWB004B	1006	0	0.3	0	20	-0.05
RUWB005A	1007	0	0	0	20.8	-0.1
RUWB005B	1007	0	0.6	0	20.5	0.86

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APPENDIX 3

Landfill Gas Field Extraction and Balancing Data

RUABON LANDFILL GAS EXTRACTION AND BALANCING DATA - APRIL 2015

Sample Point	Date/Time	CH4 (%)	CO2		Balance Gas (%)	Vacuum (mbar)	Atm Press (mbar)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
			(%)	O2 (%)							
RUAW0001	01/04/2015 09:01	34.3	22.4	0.8	42.5	-4.48	1009	2	0	5	5
RUAW0002	01/04/2015 09:04	12.4	16.9	0.4	70.3	-5.02	1010	1	0	0	0
RUAMW001	01/04/2015 09:06	19.8	12.7	9.2	58.3	-4.86	1009	1	0	0	0
RUAW0003	01/04/2015 09:09	42.9	14.8	0	42.3	-4.76	1009	2	0	5	5
RUAW0053	01/04/2015 09:11	2.3	14.7	0	83	-5.79	1009	1	0	0	0
RUAMW002	01/04/2015 09:13	36.3	20.4	0	43.3	-6.95	1008	1	0	1	1
RUAW065R	01/04/2015 09:16	31.4	24.2	0	44.4	-16.05	1008	1	0	10	10
RUAW011R	01/04/2015 09:19	43.7	27.4	1.9	27	-11.1	1008	2	0	5	5
RUAMW005	01/04/2015 09:22	32.2	24.6	0	43.2	-16.89	1008	2	0	20	10
RUAMW005	01/04/2015 09:24	32.1	24.6	0	43.3	-11.67	1008	1	0	10	10
RUAW0061	01/04/2015 09:26	46.2	27.1	0.3	26.4	-7.84	1006	2	0	5	5
RUAMW006	01/04/2015 09:28	62.9	34.1	0	3	-9.74	1008	2	0	10	10
RUAMW09R	01/04/2015 09:30	49.8	32.1	0.3	17.8	-6.77	1008	2	0	10	10
RUAW0060	01/04/2015 09:33	46.6	26.7	0	26.7	-7.7	1008	1	0	5	5
RUAW0048	01/04/2015 09:35	32.8	26.4	7.3	33.5	-0.1	1007	2	0	0	0
RUAW050R	01/04/2015 09:37	53.4	36.6	0.2	9.8	0.33	1008	1	0	0	5
RUAW050R	01/04/2015 09:39	51.9	37.9	0	10.2	-2.33	1008	1	0	5	5
RUAW0067	01/04/2015 09:41	53.6	33.1	0.6	12.7	-15.8	1009	1	0	10	10
RUAW0051	01/04/2015 09:43	58.1	35.9	0.9	5.1	-36.31	1008	2	0	10	10
RUAW057R	01/04/2015 09:45	14.2	12.2	15.3	58.3	-32.21	1009	1	0	20	0
RUAW057R	01/04/2015 09:46	19.8	12.5	14.1	53.6	-30.7	1009	1	0	0	0
RUAW032R	01/04/2015 09:48	52.7	30.3	0.4	16.6	0.12	1008	1	0	0	0
RUAW031R	01/04/2015 09:51	55.4	34.7	0	9.9	-33.25	1009	2	0	10	10
RUAW034R	01/04/2015 09:52	32.3	17.4	16	34.3	2.71	1010	2	0	0	0
RUAW0036	01/04/2015 09:56	64.9	32.6	0.3	2.2	-53.14	1008	2	0	10	10
RUAW0059	01/04/2015 09:58	54.4	30.4	2.6	12.6	-17.17	1009	2	0	0	0
RUAMW003	01/04/2015 10:00	25.5	17.4	10.1	47	-47.05	1009	1	0	0	0

Sample Point	Date/Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mbar)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
RUAW0052	01/04/2015 10:02	31.3	14.1	10.4	44.2	-49.5	1010	2	0	0	0
RUAW0035	01/04/2015 10:05	51	28.2	0.7	20.1	-0.02	1009	1	0	0	5
RUAW0035	01/04/2015 10:06	49.8	32	0.3	17.9	-42.78	1009	2	0	5	5
RUAW033R	01/04/2015 10:08	1	9.3	18.6	71.1	0.07	1011	1	0	0	0
RUAW030R	01/04/2015 10:32	74.9	19.6	0.8	4.7	-52.02	1010	1	0	100	100
RUARW040	01/04/2015 10:36	73.1	23.4	0.6	2.9	-54.6	1011	2	0	10	10
RUARW039	01/04/2015 10:39	6.1	6.7	19	68.2	-51.55	1013	1	0	5	5
RUARW038	01/04/2015 10:41	45.3	20.4	6.6	27.7	-39.71	1010	1	0	5	5
RUARW037	01/04/2015 10:42	18.4	9	15.5	57.1	-42.35	1011	2	0	100	10
RUARW037	01/04/2015 10:44	19	7.4	15.7	57.9	-48.45	1011	1	0	10	10
RUAW025R	01/04/2015 10:52	54.4	24.6	0	21	-0.64	1009	2	0	0	0
RUAW026R	01/04/2015 10:54	69	29.1	0	1.9	0	1010	2	0	0	0
RUAW0027	01/04/2015 10:56	60.5	20.2	0	19.3	-30.3	1009	2	0	5	5
RUAW056R	01/04/2015 10:58	54.7	38.1	1.1	6.1	-5	1009	2	0	5	5
RUAW0028	01/04/2015 11:00	21.8	30.1	7	41.1	-12.06	1009	4	0	0	0
RUAW0024	01/04/2015 11:02	62.9	35.4	0.3	1.4	-15.79	1008	2	0	10	10
RUAW0023	01/04/2015 11:04	61.7	36.2	0	2.1	-40.59	1009	2	0	20	20
RUAW0066	01/04/2015 11:06	58.2	34.2	0	7.6	-8.57	1009	2	0	10	20
RUAW0066	01/04/2015 11:08	57.1	35.1	0	7.8	-14.49	1009	2	0	20	20
RUAW029R	01/04/2015 11:09	58.1	35.9	0.2	5.8	-8.29	1008	2	0	10	10
RUAW0049	01/04/2015 11:12	37.8	26.2	6.9	29.1	-7.15	1008	2	0	0	0
RUAW0022	01/04/2015 11:15	61	36.8	0	2.2	-6.7	1008	2	0	20	20
RUAW0068	01/04/2015 11:17	49.1	31.2	3.7	16	-49.64	1008	1	0	5	5
RUAW0020	01/04/2015 11:22	45.6	28.7	0.3	25.4	-7.19	1009	2	0	10	10
RUAW0004	01/04/2015 11:30	52.5	25.8	1.1	20.6	-8.39	1009	2	0	5	5
RUAW0004	01/04/2015 11:32	22.2	21.1	0.2	56.5	-6.45	1009	1	0	0	0
RUAW0054	01/04/2015 11:36	0.6	10.1	10.8	78.5	-3.96	1010	1	0	0	0
RUAW0055	10/04/2015 09:58	4.2	18.9	0	76.9	-0.14	1003	1	0	0	0
RUAW0008	10/04/2015 10:01	5.8	17.1	0	77.1	-0.67	1004	1	0	1	1

Sample Point	Date/Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mbar)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
RUAW0063	10/04/2015 10:03	0.2	12.5	5.9	81.4	-0.55	1003	1	0	0	0
RUAW0007	10/04/2015 10:05	23.2	21	0	55.8	-0.53	1002	1	0	0	0
RUAW0062	10/04/2015 10:08	28.8	23.5	0	47.7	-3.43	1003	2	0	1	1
RUAMW07R	10/04/2015 10:11	30.5	25.5	0	44	-7.29	1003	2	0	5	5
RUAMW004	10/04/2015 10:13	14.1	22.1	0	63.8	-2.12	1002	1	0	0	0
RUAW0044	10/04/2015 10:16	18.7	17.3	5.7	58.3	-20.58	1003	1	0	1	1
RUAW0043	10/04/2015 10:18	23	21.7	1.3	54	-50.21	1003	2	0	1	1
RUAW0013	10/04/2015 10:19	16.5	14.8	9.3	59.4	-15.56	1003	1	0	5	1
RUAW0013	10/04/2015 10:21	16.3	14.1	9.7	59.9	-8.74	1003	1	0	1	1
RUAW0014	10/04/2015 10:24	19	9.8	13	58.2	-55.45	1004	2	0	10	0
RUAW0014	10/04/2015 10:25	21	12	12	55	-56.48	1004	2	0	0	0
RUAW0015	10/04/2015 10:27	18.6	12.8	9.9	58.7	-29.59	1004	1	0	10	0
RUAW0015	10/04/2015 10:29	18.4	13.6	9.8	58.2	-1.69	1004	2	0	0	0
RUAW0045	10/04/2015 10:32	4.9	16.2	1.2	77.7	-1.98	1000	1	0	0	0
RUAMW08R	10/04/2015 10:36	27.5	22.4	0.3	49.8	-5.46	1002	2	0	0	0
RUAW0046	10/04/2015 10:38	26.6	24.2	0	49.2	-0.24	1001	1	0	0	0
RUAW0016	10/04/2015 10:41	0.9	3.5	17.3	78.3	-13.62	1002	1	0	0	0
RUAW0017	10/04/2015 10:44	21.5	24.3	0	54.2	-0.1	1002	2	0	0	0
RUAW0064	10/04/2015 10:46	34	28.1	0	37.9	-4.33	1002	2	0	5	5
RUAW0047	10/04/2015 10:49	15.1	14	12.7	58.2	0.69	1002	5	0	0	0
RUAW0018	10/04/2015 10:51	17.6	8	12	62.4	-1.57	1001	2	0	0	0
RUAW0019	10/04/2015 10:54	33.8	24.8	0	41.4	-5	1003	2	0	5	5
RUAW0020	10/04/2015 10:58	21.2	26.3	0.6	51.9	-4.84	1003	3	0	20	10
RUAW0020	10/04/2015 10:59	21.2	26.8	0.5	51.5	-3.77	1003	3	0	0	0
RUAW0021	10/04/2015 11:02	62.5	35	0	2.5	-10.7	1002	3	0	10	20
RUAW0021	10/04/2015 11:05	61.6	35.7	0	2.7	-18.79	1002	3	0	20	20
RUAW0068	10/04/2015 11:07	41.2	24.8	6	28	-51.15	1001	2	0	10	0
RUAW0068	10/04/2015 11:08	40.4	24.2	6.4	29	-29.11	1001	1	0	0	0
RUAW0022	10/04/2015 11:10	52.2	35.5	0	12.3	-11.7	1001	2	0	20	20

Sample Point	Date/Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mbar)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
RUAW0066	10/04/2015 11:12	49.1	33.1	0	17.8	-18.03	1002	3	0	10	10
RUAW0023	10/04/2015 11:15	60	35.5	0	4.5	-46.38	1002	2	0	20	20
RUAW0049	10/04/2015 11:19	45.5	28.3	4.1	22.1	-13.43	1001	2	0	1	1
RUAW029R	10/04/2015 11:20	52.4	36	0.2	11.4	-13.68	1001	3	0	20	20
RUAW0028	10/04/2015 11:22	21.8	30.5	5.9	41.8	-1.52	1002	5	0	0	0
RUAW056R	10/04/2015 11:24	39	29.3	5.7	26	-7.22	1002	2	0	0	0
RUAW0027	10/04/2015 11:26	68.6	15.5	0.1	15.8	43.35	1003	2	0	0	10
RUAW0027	10/04/2015 11:28	69	15.9	0	15.1	-48.86	1003	2	0	10	10
RUAW0024	10/04/2015 11:30	62.2	35.1	0	2.7	-32.02	1002	2	0	20	20
RUAW025R	10/04/2015 11:33	37.5	20.6	4.3	37.6	-5.58	1004	3	0	0	0
RUAW026R	10/04/2015 11:35	35.5	21.3	0.5	42.7	-11.67	1003	36	0	10	0
RUAW026R	10/04/2015 11:37	34.6	21.9	0.8	42.7	-7.36	1003	37	0	0	0
RUAP1411	10/04/2015 11:40	0.2	3.7	19.9	76.2	-4.53	1003	2	0	0	0
RUAP1410	10/04/2015 11:41	0.2	1.5	20.5	77.8	-4.29	1004	2	0	0	0
RUAP1409	10/04/2015 11:43	0.2	0.9	20.7	78.2	-4.45	1004	1	0	0	0
RUAP1408	10/04/2015 11:46	0.2	0.6	20.7	78.5	-0.34	1004	2	0	0	0
RUAP1407	10/04/2015 11:47	1.5	1.5	13.4	83.6	-0.28	1003	2	0	0	0
RUAP1406	10/04/2015 11:50	79.4	16.2	0	4.4	0.09	1004	3	0	0	0
RUAW030R	10/04/2015 11:53	53.5	16.2	4.8	25.5	-55.64	1003	3	0	100	50
RUAW030R	10/04/2015 11:55	53.6	16.8	4.9	24.7	-55.24	1003	2	0	50	50
RUAW032R	10/04/2015 11:58	59.6	22	2.5	15.9	-16.32	1003	4	0	0	20
RUAW032R	10/04/2015 11:59	56.4	23.2	2.8	17.6	-38.07	1003	4	0	20	20
RUARW041	10/04/2015 12:04	74	22.3	0	3.7	-13.43	1004	3	0	10	10
RUARW042	10/04/2015 12:09	1	6.7	19	73.3	-51.53	1004	3	0	10	0
RUAW0005	15/04/2015 09:27	7.9	3.7	17	71.4	-50.36	1004	2	1	5	0
RUAW0005	15/04/2015 09:28	7.8	5.1	16.7	70.4	-51.45	1004	3	1	0	0
RUAW0012	15/04/2015 11:50	2.1	5.5	19	73.4	-15.53	1004	3	0	0	0
RUAW0020	15/04/2015 11:59	43.1	29.9	0	27	-5.43	1002	2	0	10	10
RUAW0021	15/04/2015 12:01	58.6	31.5	0.2	9.7	-14.55	1004	2	0	20	30

Sample Point	Date/Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mbar)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
RUAW0021	15/04/2015 12:04	55.9	35	0	9.1	-29.23	1004	2	0	30	30
RUAW0068	15/04/2015 12:06	63.8	35.4	0	0.8	53.26	1003	2	0	0	5
RUAW0068	15/04/2015 12:08	63.4	35.8	0	0.8	32.78	1003	2	0	5	5
RUAW0022	15/04/2015 12:11	49.6	35.4	0	15	-14.86	1003	3	0	20	20
RUAW0066	15/04/2015 12:13	46.2	33.3	0	20.5	-21.58	1003	4	0	10	10
RUAW0023	15/04/2015 12:15	60.5	36.1	0	3.4	-52.17	1004	2	0	20	20
RUAW0024	15/04/2015 12:18	61.2	35.9	0	2.9	-32.64	1005	3	0	20	20
RUAW025R	15/04/2015 12:22	27.3	18.6	3.6	50.5	-7.55	1005	20	1	0	0
RUAW026R	15/04/2015 12:27	41.8	20	4.3	33.9	-4.03	1005	2	0	0	0
RUAP1407	15/04/2015 12:30	1.8	4.8	13	80.4	0.31	1006	2	0	0	0
RUAP1408	15/04/2015 12:33	2.9	1.9	19.6	75.6	0.1	1005	10	0	0	0
RUAP1409	15/04/2015 12:35	0.1	0.9	20.7	78.3	-3.62	1006	2	0	0	0
RUAP1410	15/04/2015 12:38	0.1	0.5	20.8	78.6	-4.22	1006	1	0	0	0
RUAP1411	15/04/2015 12:39	0.1	0.4	20.7	78.8	-4.95	1006	5	0	0	0
RUARW037	15/04/2015 12:42	16.9	2.3	16.1	64.7	-52.26	1006	2	0	10	0
RUARW037	15/04/2015 12:43	18.6	6.4	15.2	59.8	-51.96	1006	1	0	0	0
RUARW038	15/04/2015 12:46	48.5	22.5	5.1	23.9	-51.53	1006	2	0	10	0
RUARW038	15/04/2015 12:47	48.4	23.3	5	23.3	-52.67	1006	2	0	0	0
RUARW039	15/04/2015 12:49	13.3	12.7	15.2	58.8	-24.46	1007	3	0	10	0
RUARW039	15/04/2015 12:51	13.3	12.7	15.3	58.7	-45.69	1007	3	0	0	0
RUARW040	15/04/2015 12:53	69.7	22.4	1	6.9	-52.69	1006	2	0	10	10
RUAP1406	15/04/2015 13:00	71.5	18.2	1.3	9	-0.64	1006	2	0	10	10
RUAW030R	15/04/2015 13:03	68.8	23.5	1	6.7	-55.46	1005	2	0	30	30
RUAW033R	15/04/2015 13:05	67.8	28.7	0.3	3.2	-54.55	1006	2	0	10	10
RUAW0001	23/04/2015 09:51	36.2	20.3	0	43.5	-0.72	1007	5	0	1	1
RUAW0002	23/04/2015 09:54	0.2	2.4	17.3	80.1	0.19	1008	5	0	0	0
RUAMW001	23/04/2015 09:57	45.6	20.6	0	33.8	-0.12	1007	6	0	0	0
RUAMW001	23/04/2015 09:59	45.6	21.2	0	33.2	-0.24	1007	5	0	5	5
RUAW0003	23/04/2015 10:02	16	17.9	0	66.1	-5.05	1008	5	0	5	0

Sample Point	Date/Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mbar)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
RUAW0003	23/04/2015 10:04	15.8	18.2	0	66	-0.12	1008	5	0	0	0
RUAW0053	23/04/2015 10:06	0.2	2.9	18.9	78	0.02	1008	4	0	0	0
RUAW065R	23/04/2015 10:10	33.3	23.5	0	43.2	-7.03	1007	5	0	20	10
RUAW065R	23/04/2015 10:12	33.2	23.9	0	42.9	-3.38	1007	4	0	5	5
RUAW011R	23/04/2015 10:15	47	28.2	0	24.8	-1.83	1007	4	0	5	5
RUAMW005	23/04/2015 10:19	38.5	24.9	0	36.6	-4.93	1007	3	0	10	10
RUAW0061	23/04/2015 10:21	67.1	30.8	0	2.1	-0.31	1007	4	0	5	10
RUAW0061	23/04/2015 10:23	66.2	31.3	0	2.5	-14.44	1007	3	0	10	10
RUAMW006	23/04/2015 10:26	61.2	34.2	0	4.6	-6.08	1006	4	0	10	10
RUAMW09R	23/04/2015 10:29	44.8	31.3	0	23.9	-2.76	1007	4	0	5	5
RUAW0060	23/04/2015 10:31	61.4	31.8	0	6.8	0.38	1007	3	0	0	5
RUAW0060	23/04/2015 10:33	44.2	29.5	0	26.3	-4.03	1007	3	0	5	5
RUAW0048	23/04/2015 10:36	35.2	28.4	6	30.4	0.1	1005	4	0	0	0
RUAW050R	23/04/2015 10:38	11.6	20.4	2.1	65.9	-0.29	1005	3	0	1	0
RUAW050R	23/04/2015 10:39	11.5	20.1	2.1	66.3	-0.59	1005	3	0	0	0
RUAW0067	23/04/2015 10:42	34.4	28.1	0.2	37.3	-13.37	1008	3	0	5	5
RUAW0051	23/04/2015 10:44	37.3	24.6	7.1	31	-35.87	1006	3	0	10	0
RUAW0051	23/04/2015 10:45	35.9	23.6	7.7	32.8	-32.73	1006	2	0	0	0
RUAW057R	23/04/2015 10:48	32.5	24.1	6.9	36.5	-21.25	1007	2	0	10	0
RUAW057R	23/04/2015 10:50	36	26.5	5.4	32.1	-17.17	1007	2	0	0	0
RUAW032R	23/04/2015 10:56	60.6	37	0	2.4	-1.33	1006	3	0	5	10
RUAW032R	23/04/2015 10:58	59	39	0	2	-2.86	1006	2	0	10	10
RUAW031R	23/04/2015 11:00	43.3	32.8	0	23.9	-26.59	1007	3	0	10	10
RUAW034R	23/04/2015 11:03	61.5	33.4	0.1	5	-0.19	1006	3	0	5	10
RUAW034R	23/04/2015 11:04	61.7	33.2	0.1	5	-2.15	1006	3	0	10	10
RUAW033R	23/04/2015 11:06	66.2	29.5	0.2	4.1	-42.76	1007	3	0	50	50
RUAW030R	23/04/2015 11:08	68.7	24.9	0.5	5.9	-46.83	1008	2	0	50	50
RUAW0012	23/04/2015 13:33	3.2	6.1	18.9	71.8	-12.84	1005	3	0	1	1
RUAW0013	23/04/2015 13:36	20.9	13.6	7.9	57.6	-12.53	1006	1	1	5	1

Sample Point	Date/Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mbar)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
RUAW0013	23/04/2015 13:38	21.2	15.9	7.4	55.5	-3.57	1006	2	1	1	1
RUAW0014	23/04/2015 13:40	70.3	24.1	0	5.6	45	1007	1	1	0	10
RUAW0014	23/04/2015 13:42	68.1	26.5	0	5.4	6.7	1007	1	1	10	10
RUAW0015	23/04/2015 13:44	68.6	28.9	0.1	2.4	0.24	1007	2	1	0	10
RUAW0015	23/04/2015 13:47	64.4	32.5	0.1	3	-18.86	1007	2	1	10	10
RUAW0045	23/04/2015 14:07	58.1	22.3	0	19.6	0.14	1006	1	1	0	5
RUAW0045	23/04/2015 14:09	57.7	23	0	19.3	-8.46	1006	1	1	5	5
RUAMW08R	23/04/2015 14:12	13.7	10.6	11.4	64.3	-0.53	1004	1	1	0	0
RUAW0046	23/04/2015 14:14	31	20.1	0	48.9	0.1	1003	2	1	0	0
RUAW0064	23/04/2015 14:16	49.4	31.8	0	18.8	-1.41	1004	2	1	5	10
RUAW0064	23/04/2015 14:18	47.3	32.1	0	20.6	-2.38	1004	2	1	10	10
RUAW0019	23/04/2015 14:23	35.1	27.5	0	37.4	-7.12	1005	2	1	5	5
RUAMW001	30/04/2015 13:41	27.5	19.9	0.5	52.1	-1.67	995	2	0	5	0
RUAMW001	30/04/2015 13:42	26.1	20.8	0.6	52.5	-2.14	995	1	0	0	0
RUAW065R	30/04/2015 13:46	33.4	23.5	0	43.1	-19.75	995	3	0	20	5
RUAW065R	30/04/2015 13:47	33.3	23.6	0	43.1	-4.25	995	4	0	5	5
RUAW011R	30/04/2015 13:50	37.6	23.9	2.9	35.6	-6.87	995	7	0	10	5
RUAW011R	30/04/2015 13:52	39.4	25.3	2	33.3	-5	995	7	0	5	5
RUAMW005	30/04/2015 14:12	41.9	24.7	0.1	33.3	-5.61	995	9	0	20	20
RUAW0061	30/04/2015 14:15	39.1	25.5	0	35.4	-5.22	995	9	0	10	10
RUAMW006	30/04/2015 14:17	64	33.6	0	2.4	-5.23	995	9	0	10	20
RUAMW006	30/04/2015 14:20	64	34.2	0	1.8	-7.73	995	10	0	20	20
RUAMW09R	30/04/2015 14:26	40.5	29.8	0.1	29.6	-5	995	11	0	10	10

APPENDIX 4

Leachate Level Data

Ruabon Leachate Level Data - April 2015



From : 28/04/2015

To : 28/04/2015

28/04/2015

Sample Point	Depth of Liq (m)	Dip to Water (m)	TD (m)	Water Level (mAOD)
LMP006R	1.16	18.76	19.03	112.56
LMP007R	1.27	17.52	18.98	112.07
LMP008R	1.36	21.11	21.94	111.36
LMP009R	1.59	21.39	21.67	111.89
RUGW00M1	1.40	12.77	14.62	111.85
RUGW00M3	1.66	11.23	11.84	113.91
RUGW00M5	0.77	20.55	21.07	111.27
RUGW00M10	1.77	26.84	27.59	97.77
RUGWM4r	1.35	16.48	17.55	111.43
RULMP2r	0.83	15.38	15.93	110.83

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APPENDIX 5

Groundwater Quality Data

Ruabon Groundwater Quality & Level Data - April 2015



From : 01/04/2015

To : 01/04/2015

01/04/2015

Sample Point	Alk (CaCO3:mg/l)	Amm-N (N:mg/l)	BOD (mg/l)	Ca(D) (mg/l)	Cd(D) (mg/l)	Chloride (mg/l)	Cr(D) (mg/l)
RUBH0013	326	0.19	2.6	150	<0.0001	7	<0.001
RUWB002A	168	1.6	9	94	<0.0001	411	<0.001
RUWB002B	317	0.5	<2.9	90	<0.0001	149	<0.001
RUWB002C	952	2	2.9	215	<0.0001	341	<0.001
RUWB002D	291	0.06	<2.0	16	<0.0001	25	<0.001
RUWB003A	380	1.1	5.8	8	<0.0001	22	<0.001
RUWB004A	528	0.3	4	3	<0.0001	19	<0.001
RUWB005A	355	1	4.1	2	<0.0001	37	<0.001
RUWB005B	165	0.14	3	84	<0.0001	55	<0.001

Sample Point	COD (mg/l)	Cond (uS / cm)	Cond(Fld) (uS / cm)	Cu(D) (mg/l)	Dip to Water (m)	Fe(D) (mg/l)	Pb(D) (mg/l)
RUBH0013	13	720	740	<0.001	0.9	0.1	<0.001
RUWB002A	12	1710	1710	<0.001	4.7	0.51	<0.001
RUWB002B	8	1060	1130	<0.001	5.96	0.1	<0.001
RUWB002C	16	2710	2740	<0.001	6.2	0.14	<0.001
RUWB002D	<5	676	650	<0.001	5.92	0.02	<0.001
RUWB003A	<5	732	720	<0.001	8.96	<0.01	<0.001
RUWB004A	<5	1020	1050	<0.001	2.99	0.19	<0.001
RUWB005A	10	1140	1190	<0.001	2.81	0.26	<0.001
RUWB005B	6	641	650	<0.001	3.99	0.12	<0.001

Sample Point	K(D) (mg/l)	Mg(D) (mg/l)	Mn(D) (mg/l)	Na(D) (mg/l)	Ni(D) (mg/l)	pH (Lab)	pH(Fld)
RUBH0013	5	13	0.448	28	0.001	7.7	6.98
RUWB002A	29	47	0.419	175	0.003	7.2	7.40
RUWB002B	12	18	0.114	130	0.011	7.6	7.63
RUWB002C	18	22	2.751	379	0.033	7.3	6.84
RUWB002D	8	4	0.006	140	<0.001	7.9	7.37
RUWB003A	15	15	0.176	155	<0.001	8	7.72
RUWB004A	10	<1	0.003	275	<0.001	9	9.28
RUWB005A	5	<1	0.004	300	<0.001	9.8	10.18
RUWB005B	16	19	0.046	22	<0.001	8	8.48

Sample Point	S.Solids (mg/l)	TD (m)	TOC (mg/l)	TON (mg/l)	Total S(D) SO4:mg/l	WtrTemp (Deg C)	Zn(D) (mg/l)
RUBH0013	140	34.63	5	<0.2	65	9.4	0.002
RUWB002A	213	21.37	4.7	<0.2	<3	10.4	<0.002
RUWB002B	162	10.46	2.8	<0.2	<3	10.4	<0.002
RUWB002C	1820	8.05	7.2	<0.2	41	10.5	0.002
RUWB002D	31	21.65	1.7	0.3	38	10.3	0.006
RUWB003A	154	10.7	1.5	<0.2	<3	10	0.003
RUWB004A	98	48.83	1.5	0.2	16	9.4	<0.002
RUWB005A	72	25.31	0.54	<0.2	220	10.4	<0.002
RUWB005B	22	8.4	3.4	<0.2	76	9.8	<0.002

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APPENDIX 6

Surface Water Quality Data

Ruabion Surface Water Quality Data - April 2015



From : 01/04/2015

To : 01/04/2015

01/04/2015

Sample Point	Amm-N (N:mg/l)	BOD (mg/l)	Chloride (mg/l)	COD (mg/l)	Cond (uS / cm)	Cond(Fld) (uS / cm)	DO(Lab) (mg/l)
RUWP004A	1.2	5.3	44	29	767	790	5.2

Sample Point	pH (Lab)	pH(Fld)	S.Solids (mg/l)	WtrTemp (Deg C)
RUWP004A	7.6	6.79	6	8.2

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